

SEQUENCE LISTING

<110> BASF Aktiengesellschaft

<120> Preparing 3-methylamino-1-(thien-2-yl)propan-1-ol

<130> M/44142

<160> 6

<170> PatentIn version 3.1

<210> 1

<211> 47

<212> PRT

<213> Lactobacillus brevis

<400> 1

Met Ser Asn Arg Leu Asp Gly Lys Val Ala Ile Val Thr Gly Gly Thr
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Leu Gly Ile Gly Leu Ala Ile Ala Thr Lys Phe Val Glu Glu Gly Ala
20 25 30

Lys Val Met Ile Thr Gly Arg His Ser Asp Val Gly Glu Lys Ala
35 40 45

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<213> Candida magnoliae

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Ser Asn Ala Leu Val Thr Gly Gly Ser Arg Val Ile Gly Ala Gly Gly
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Phe Ile

<210> 3

<211> 756

<212> DNA

<213> Lactobacillus brevis

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ttg ggt atc ggt tta gct atc gcc acg aag ttc gtt gaa gaa ggg gct	96
Leu Gly Ile Gly Leu Ala Ile Ala Thr Lys Phe Val Glu Glu Gly Ala	
20 25 30	

aag gtc atg att acc ggc cgg cac agc gat gtt ggt gaa aaa gca gct	144
Lys Val Met Ile Thr Gly Arg His Ser Asp Val Gly Glu Lys Ala Ala	
35 40 45	

aag agt gtc ggc act cct gat cag att caa ttt ttc caa cat gat tct	192
Lys Ser Val Gly Thr Pro Asp Gln Ile Gln Phe Phe Gln His Asp Ser	
50 55 60	

tcc gat gaa gac ggc tgg acg aaa tta ttc gat gca acg gaa aaa gcc	240
Ser Asp Glu Asp Gly Trp Thr Lys Leu Phe Asp Ala Thr Glu Lys Ala	
65 70 75 80	

ttt ggc cca gtt tct aca tta gtt aat aac gct ggg atc gcg gtt aac	288
Phe Gly Pro Val Ser Thr Leu Val Asn Asn Ala Gly Ile Ala Val Asn	
85 90 95	

aag agt gtc gaa gaa acc acg act gct gaa tgg cgt aaa cta tta gcc	336
Lys Ser Val Glu Glu Thr Thr Ala Glu Trp Arg Lys Leu Leu Ala	
100 105 110	

3

gtc aac ctt gat ggt gtc ttc gtc acc cga tta ggg att caa cg	384
Val Asn Leu Asp Gly Val Phe Phe Gly Thr Arg Leu Gly Ile Gln Arg	
115 120 125	
atg aag aac aaa ggc tta ggg gct tcc atc atc aac atg tct tcg atc	432
Met Lys Asn Lys Gly Leu Gly Ala Ser Ile Ile Asn Met Ser Ser Ile	
130 135 140	
gaa ggc ttt gtg ggt gat cct agc tta ggg gct tac aac gca tct aaa	480
Glu Gly Phe Val Gly Asp Pro Ser Leu Gly Ala Tyr Asn Ala Ser Lys	
145 150 155 160	
ggg gcc gta cgg att atg tcc aag tca gct gcc tta gat tgt gcc cta	528
Gly Ala Val Arg Ile Met Ser Lys Ser Ala Ala Leu Asp Cys Ala Leu	
165 170 175	
aag gac tac gat gtt cgg gta aac act gtt cac cct ggc tac atc aag	576
Lys Asp Tyr Asp Val Arg Val Asn Thr Val His Pro Gly Tyr Ile Lys	
180 185 190	
aca cca ttg gtt gat gac cta cca ggg gcc gaa gaa gcg atg tca caa	624
Thr Pro Leu Val Asp Asp Leu Pro Gly Ala Glu Glu Ala Met Ser Gln	
195 200 205	
cgg acc aag acg cca atg ggc cat atc ggt gaa cct aac gat att gcc	672
Arg Thr Lys Thr Pro Met Gly His Ile Gly Glu Pro Asn Asp Ile Ala	
210 215 220	
tac atc tgt gtt tac ttg gct tct aac gaa tct aaa ttt gca acg ggt	720
Tyr Ile Cys Val Tyr Leu Ala Ser Asn Glu Ser Lys Phe Ala Thr Gly	
225 230 235 240	
tct gaa ttt gta gtt gac ggt ggc tac act gct caa	756
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<210> 4

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<212> PRT

<213> Lactobacillus brevis

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Met Ser Asn Arg Leu Asp Gly Lys Val Ala Ile Val Thr Gly Gly Thr	
1 5 10 15	

Leu Gly Ile Gly Leu Ala Ile Ala Thr Lys Phe Val Glu Glu Gly Ala	
20 25 30	

Lys Val Met Ile Thr Gly Arg His Ser Asp Val Gly Glu Lys Ala Ala

35

40

45

Lys Ser Val Gly Thr Pro Asp Gln Ile Gln Phe Phe Gln His Asp Ser
50 55 60

Ser Asp Glu Asp Gly Trp Thr Lys Leu Phe Asp Ala Thr Glu Lys Ala
65 70 75 80

Phe Gly Pro Val Ser Thr Leu Val Asn Asn Ala Gly Ile Ala Val Asn
85 90 95

Lys Ser Val Glu Glu Thr Thr Ala Glu Trp Arg Lys Leu Leu Ala
100 105 110

Val Asn Leu Asp Gly Val Phe Phe Gly Thr Arg Leu Gly Ile Gln Arg
115 120 125

Met Lys Asn Lys Gly Leu Gly Ala Ser Ile Ile Asn Met Ser Ser Ile
130 135 140

Glu Gly Phe Val Gly Asp Pro Ser Leu Gly Ala Tyr Asn Ala Ser Lys
145 150 155 160

Gly Ala Val Arg Ile Met Ser Lys Ser Ala Ala Leu Asp Cys Ala Leu
165 170 175

Lys Asp Tyr Asp Val Arg Val Asn Thr Val His Pro Gly Tyr Ile Lys
180 185 190

Thr Pro Leu Val Asp Asp Leu Pro Gly Ala Glu Glu Ala Met Ser Gln
195 200 205

Arg Thr Lys Thr Pro Met Gly His Ile Gly Glu Pro Asn Asp Ile Ala
210 215 220

Tyr Ile Cys Val Tyr Leu Ala Ser Asn Glu Ser Lys Phe Ala Thr Gly
225 230 235 240

Ser Glu Phe Val Val Asp Gly Gly Tyr Thr Ala Gln
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<211> 472

<212> DNA

<213> Candida magnoliae

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1          5          10         15

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att aag ctc gag gag ggc tac agc gtc acg att gcg tct cgc ggc 96
Ile Lys Leu Ala Glu Glu Gly Tyr Ser Val Thr Ile Ala Ser Arg Gly
20 25 30

ctt aag cag ctc gag gct gtg aag gcc aaa cta ccc att gtg aag cag 144
 Leu Lys Gln Leu Glu Ala Val Lys Ala Lys Leu Pro Ile Val Lys Gln
 35 40 45

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gga cag gtt cac cac gtg tgg cag ctt gat ctc agt gat gtc gac gct      192
Gly Gln Val His His Val Trp Gln Leu Asp Leu Ser Asp Val Asp Ala
      50          55          60

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gcg gcc gcc ttc aaa ggg tcg ccg cta cct gcc agc cgc tac gac gtg      240
Ala Ala Ala Phe Lys Gly Ser Pro Leu Pro Ala Ser Arg Tyr Asp Val
65          70          75          80

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ctc gtc agc aat gct ggc gtg gcc cag ttt agc ccg ttc atc gag cat 288
 Leu Val Ser Asn Ala Gly Val Ala Gln Phe Ser Pro Phe Ile Glu His
 85 90 95

att gcg ctg gcc cag aca ttt gct aag gcc att ggc gac aag ccg cgc 384
Ile Ala Leu Ala Gln Thr Phe Ala Lys Ala Ile Gly Asp Lys Pro Arg
115 . . . 120 . . . 125

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aac aca ccg gcc cac att gtg ttt gtc tcg tcg aac gtc tcg ttg cga . . . 432
Asn Thr Pro Ala His Ile Val Phe Val Ser Ser Asn Val Ser Leu Arg
    130             135             140

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ggc ttc ccg aac atc ggc gtc aac tcc atc acc ccc ggc a      472
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<210> 6

<211> 157

<212> PRT

<213> Candida magnoliae

<400> 6

Asn Ala Leu Val Thr Gly Gly Ser Arg Gly Ile Gly Glu Ala Thr Ala
1 5 10 15

Ile Lys Leu Ala Glu Glu Gly Tyr Ser Val Thr Ile Ala Ser Arg Gly
20 25 30

Leu Lys Gln Leu Glu Ala Val Lys Ala Lys Leu Pro Ile Val Lys Gln
35 40 45

Gly Gln Val His His Val Trp Gln Leu Asp Leu Ser Asp Val Asp Ala
50 55 60

Ala Ala Ala Phe Lys Gly Ser Pro Leu Pro Ala Ser Arg Tyr Asp Val
65 70 75 80

Leu Val Ser Asn Ala Gly Val Ala Gln Phe Ser Pro Phe Ile Glu His
85 90 95

Ala Lys Gln Asp Trp Ser Gln Met Leu Ala Ile Asn Leu Ala Ala Pro
100 105 110

Ile Ala Leu Ala Gln Thr Phe Ala Lys Ala Ile Gly Asp Lys Pro Arg
115 120 125

Asn Thr Pro Ala His Ile Val Phe Val Ser Ser Asn Val Ser Leu Arg
130 135 140

Gly Phe Pro Asn Ile Gly Val Asn Ser Ile Thr Pro Gly
145 150 155